been allocated for implementation of afforestation projects in the country during the ninth five year plan through the National Afforestation and Eco-development Board of the Ministry of Environment and Forests.

Action plan for Nandan Kanan

4343. SHRI B.J. PANDA: Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) whether a long term action plan for overall development of Nandan Kanan in Orissa is proposed to be implemented;

(b) whether the State Government has sought any Central assistance for implementing the action plan; and

(c) if so, the details of steps taken to assist the State Government for the purpose?

THE MINISTER OF ENVIRONMENT AND FORESTS (SHRI T. R. BAALU) : (a) Chief Wildlife Warden, Orissa has informally apprised the Central Zoo Authority of preparation of a long term action plan for over all development of Nandan Kanan Zoo.

(b) No financial assistance has been sought by the State Government for implementation of the plan.

(c) Does not arise.

Technologies for Disposal of Industrial and Medical Wastes

4344. SHRI P. K. MAHESHWARI: Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) what technologies are available in the country for disposal of industrial and medical wastes;

(b) whether Government have made any comparative study about advantages and disadvantages of such technologies;

(c) what are the details of Industries/Units that have not been able to meet the standards laid down by Government for disposal of solid industrial waste/ hazardous solid waste; and

(d) the action being taken by the Government in the matter?

THE MINISTER OF ENVIRONMENT AND FORESTS (SHRI T. R. BAALU) (a) The technologies that are available for treatment and disposal of industrial and medical wastes are as follows:

Technologies for Industrial Wastes including Hazardous Wastes

Physical: Absorption, Centrifugation, Distillation, Electrodialysis, Encapsulation, Evaporation, Filtration, Flocculation, Flotation, Reverse Osmosis, Sedimentation, Solar Drying and Ultrafiltration.

Chemical: Acid cleavage, Calcination, Neutralisation, Oxidation, Precipitation, Reduction, and Solidification.

Thermal: Incineration and Pyrolysis.

Biological: Activated sludge and Waste stabilisation pond.

Recovery recycling: Organic solvents, Ferrous & non-ferrous metallics, Glass, Lubricating oil reprocessing for recovery of base oil and Car batteries for recovery of lead.

Technologies for Biomedical Wastes

Incineration, Deep burial, Autoclaving, Microwaving, Chemical treatment and Shredding.

(b) The selection of technology for different types of wastes is based on characterisation of waste and the level at which the waste is to be treated to render it harmless. Each technology has its own advantages and disadvantages and has to be judged with regard to parameters such as availability of space, cost of operation and maintenance, desired level of treatment, etc.

(c) Large industries have generally provided treatment and disposal facilities for captive use. Medium and small-scale industries generating hazardous solid wastes face difficulties in environmentally sound management of the wastes due to their limited scale of operation, paucity of funds and lack of common treatment facilities.

(d) The Ministry of Environment & Forests has taken the following steps for ensuring environmentally sound management of hazardous wastes:

(i) Industries generating hazardous wastes have been directed to set up requisite facilities for treatment and disposal of hazardous wastes

either at individual level or collectively which may include common arrangement for treatment, storage and disposal facility (TSDF).

(ii) Financial assistance has been given to set up a common facility to treat hazardous wastes in Maharashtra.

(iii) An amendment in the Hazardous Waste Rules, 1989/2000 is contemplated to make it mandatory for all industries to send their wastes to a common facility, if they cannot make their own arrangements for disposal.

(iv) Guidelines for setting up hazardous wastes treatment facilities and criteria for hazardous waste landfills have been prepared by CPCB.

(v) In order to promote recycling/reprocessing of certain wastes such as waste oil, lead acid batteries and non-ferrous metallic wastes, a scheme of registration has been introduced by the Ministry of Environment & Forests. Under this scheme, industrial units that possess environmentally sound technologies and facilities for waste disposal are allowed to reprocess these wastes.

(vi) A system of mandatory collection of old/used lead acid batteries and its treatment and disposal in an environmentally sound manner has been provided for under the Batteries (Management & Handling) Rules, 2001. Similar steps are being taken in respect of waste oil.

(vii) Powers have been delegated to the State Pollution Control Boards and Pollution Control Committees for issuance of directions under Section 5 of the Environment (Protection) Act, 1986.

Anti-air pollution measures by NALCO and Thermal Power Plants in Orissa

4345. SHRI B. J. PANDA : Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) whether it is a fact that the Public Sector Unit namely NALCO and the Thermal Power Plants at Angul and Talcher in Orissa are not taking anti-air pollution measures;

(b) whether the polluted air and ashes are creating a serious health hazard in those areas; and